

However, the Examiner rejects the remaining claims in light of a newly discovered reference. Specifically, the Examiner rejects claims 1, 9, 20, and 28 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,777,406 to Bomba et al. (hereinafter "Bomba") in view of U.S. Patent No. 3,488,532 to Endress et al. (hereinafter "Endress"). Additionally, the Examiner rejects claims 2, 16, and 17 as unpatentable over Bomba and Endress and further in view of U.S. Patent No. 3,800,174 to Butterfield et al. (hereinafter "Butterfield"). Furthermore, the Examiner rejects claims 4, 5, and 10 under 35 U.S.C. § 103(a) as being unpatentable over Bomba and Endress and further in view of U.S. Patent No. 4,728,840 to Newhouse (hereinafter "Newhouse"). Still further, the Examiner rejects claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Bomba and Endress and further in view of U.S. Patent No. 3,629,628 to Rank et al. (hereinafter "Rank"). Lastly, the Examiner rejects claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Bomba and Endress and further in view Rank and further in view of U.S. Patent No. 5,980,650 to Belt et al. (hereinafter "Belt").

In response, Applicants respectfully traverse the Examiner's rejections under 35 U.S.C. § 103(a) for at least the reasons set forth below.

Recently the U.S. Court of Appeals for the Federal Circuit (the "Federal Circuit") restated the legal test applicable to rejections under 35 U.S.C. § 103(a) (*In re Rouffet*, 47 USPQ2d 1453 (Fed. Cir., July 15, 1998)). The Court stated:

[V]irtually all [inventions] are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." To prevent the use of hind sight based on the invention to defeat patentability of

the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. ... To counter this potential weakness in the obviousness construct **the suggestion to combine requirements stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness.**

*In re Rouffet*, 47 USPQ2d 1457-58 (Fed. Cir., July 15, 1998) (citations omitted, emphasis added).

More recently, the Federal Circuit again dealt with what is required to show a motivation to combine references under 35 U.S.C. § 103(a). In this case the court reversed the decision of the Board of appeals stating:

[R]ather than pointing to specific information in Holiday or Shapiro that suggest the combination..., the Board instead described in detail the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other-in combination with each other... described all of the limitations of the pending claims. Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the ... references, nor does the Board make specific-or even inferential-findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any factual findings that might serve to support a proper obviousness analysis.

*In re Dembiczak*, 50 USPQ2d 1614, 1618 (Fed. Cir., April 28, 1999) (citations omitted).

Thus, from both *In re Rouffet* and *In re Dembiczak* it is clear that the Federal Circuit requires a specific identification of a suggestion, motivation, or teaching why one of ordinary skill in the art would have been motivated to select the references and combine them. This the Examiner has not done. The Examiner argues that Bomba discloses a conductive rotor bar having at least one internal conduit formed therein and Endress discloses a circulation means for establishing a coolant circulation through the internal conduit. The Examiner further argues that it would have been obvious to combine Bomba and Endress since they are in the same field of endeavor and because it was known in the art at the time of the invention to use a circulation means to establish a coolant circulation through an internal

conduit as taught by Endress. *In re Rouffet* and *In re Dembiczak* make it clear that this is not enough.

Although Bomba discloses internal conduits formed in the rotor bars and Endress discloses circulation through external conduits proximate the rotor bars, Applicants respectfully disagree that there is a motivation or suggestion to combine the references. Bomba teaches internal conduits for airflow through the conduits for the purpose of cooling the rotor bars. Bomba does not teach or suggest the use of a circulation means for establishing a coolant circulation through the conduits. "Circulation" connotes that the coolant enters and exits the internal conduits and, at a later time, returns to the internal conduits to create a circulation "loop." Such is the ordinary meaning of the term "circulation." The air that enters and exits the conduits of Bomba does not return in a circulation "loop," but is simply exhausted to the environment. Thus, there is no motivation or suggestion to combine it with Endress that teaches such a circulation loop. In fact, the combination of Bomba and Endress would produce an inoperable device since air or other gases used for cooling cannot be practically circulated in a cooling loop. "If when combined, the references 'would produce a seemingly inoperative device,' then they teach away from their combination." *Tec Air Inc. v. Denso Manufacturing Michigan Inc.*, 192 F.3d 1353, 52 USPQ2d 1294 (Fed. Cir. 1999).

Thus, Applicants respectfully submit that the Examiner, without identifying a suggestion, motivation, or teaching for combining the references, has used impermissible hindsight to reject claims 1-3, 6, and 7 under 35 U.S.C. § 103(a). In fact, as discussed above, the combination of Bomba and Endress identified by the Examiner would result in an inoperable device which teaches away from the combination. As discussed above, the Federal

Circuit in *In re Rouffet* stated that virtually all inventions are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation to combine the references that create the case of obviousness. Applicants respectfully submit that the Examiner has not met this burden.

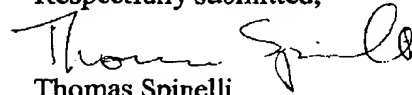
In light of the state of the law as set forth by the Federal Circuit and the Examiner's lack of specificity with regard to the motivation to combine the cited references, the applicant respectfully submits that the rejections for obviousness under 35 U.S.C. § 103(a) lack the requisite motivation and must be withdrawn.

Furthermore, Applicants have previously argued that claims 9 and 10 patentably distinguish over the cited references independently of their base claims because the conductive bars of Endress are shown as being uniform in cross-section (rectangular with a bumped out portion and a corresponding bumped-in portion) and therefore could not show the features recited in claims 9 and 10. In fact, what the Examiner refers to as a portion of increased cross-section is in fact a portion of lesser cross-section. The Examiner has not previously responded to these arguments. For these reasons, Applicants respectfully again submit that claims 9 and 10 patentably distinguish over the cited references and are allowable.

The above remarks establish the patentable nature of all the claims currently in this case. Issuance of a Notice of Allowance and passage to issue of these claims are

therefore respectfully solicited. If the Examiner believes that a telephone conference with Applicant's attorney would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



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